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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,107	06/27/2001	Shinji Kawamoto	10873.760US01	4882

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MERCHANT & GOULD PC
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER

PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 03/31/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/893,107

Applicant(s)

KAWAMOTO ET AL.

Examiner

Andrew T Piziali

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 7-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

- ✓ 1. Applicant's election with traverse of Group I, claims 1-27 and Species I, claims 1-6 in Paper No. 3 is acknowledged. The traversal is on the grounds that the claims in Group II, that correspond to allowable Group I, should be reinstated in the event that Group I is allowed. Rejoinder will be considered upon indication of allowable subject matter pursuant to MPEP 821.04. The requirement is still deemed proper and is therefore made FINAL.

Specification

- ? 2. The disclosure is objected to because of the following informalities: On page 4, lines 24-25 the specification teaches "the amount of heat generated can be reduced by reducing the film thickness of those areas where large amounts of heat are generated." On page 4, lines 8-9 the specification teaches "the amount of heat generated can be reduced by increasing the film thickness of those areas where a lot of heat is generated." It appears that the statement in lines 8-9 is correct. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,786,784 to Nikodem et al. (hereinafter referred to as Nikodem).

Regarding claims 1-6, Nikodem discloses a window glass for a vehicle comprising a glass sheet and a transparent conductive film and a pair of bus bars for feeding power to the transparent conductive film, the bus bars including a longer bus bar and a shorter bus bar, the transparent conductive film and the bus bars being formed on the glass sheet (abstract, column 5, line 32 through column 6, line 29 and Figure 1).

Nikodem discloses that the "Resistance of the product can be changed by varying either the silver thickness or the coating parameters or both and is adjusted to compensate for resistance changes due to electric powering, and/or temperature/pressure affects in lamination" (column 4, lines 6-17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to increase the thickness of the silver layer from the longer bus bar towards the shorter bus bar, because it requires only routine skill in the art to determine that more heat is generated closer to the shorter bus bar than is generated closer to the longer bus bar and because Nikodem discloses that the thickness may be varied to compensate for resistant changes in the lamination.

Regarding claim 4, Nikodem discloses that the window glass may comprise at least two glass sheets and a thermoplastic resin film for bonding the glass sheets and the conductive film and bus bars are provided on the surface of one of the glass sheets (abstract and column 7, lines 28-44).

Regarding claim 5, Nikodem discloses that the conductive film may comprise a metal

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oxide film, a silver layer and a second metal oxide layer (column 6, lines 18-29). Nikodem does not specifically mention a five layer conductive film, but the examiner takes Official Notice that it is well known in the art that alternating layers of metal oxide and Ag may be repeated as desired to reach the desired reflectance. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a five layer conductive film rather than the three layer conductive film disclosed by Nikodem, because a five layer film reduces the reflectance more than a comparable three layer film which is desirable in some vehicular window glass applications.

Regarding claim 6, Nikodem discloses that a ceramic mask may be provided at a portion where the bus bars are formed (abstract and column 5, lines 32-60).

Conclusion

5. The following patent is cited to further show the state of the art with respect to varying the thickness of a conductive film of an electrically heated window to vary the heat generated.

USPN 3,982,092 to Marriott (especially column 6, lines 7-24)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (703) 306-0145. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5665.

g-pz

atp
March 19, 2003

Andrew T Piziali
Examiner
Art Unit 1775


DEBORAH JONES
SUPERVISORY PATENT EXAMINER